

**Alternative Exchange Rate Regimes for
Sub-Saharan Africa**

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Abstract

This essay provides an overview of the merits and demerits of different systems of exchange rate management. A brief historical review is presented to set the context. The principal objectives of exchange rate policy are then discussed, as are the pros and cons of fixed exchange rates. The usefulness and limits of currency boards is examined and the advantages and disadvantages of floating exchange rates are discussed. The problem of dealing with transient exchange rate movements is considered. The essay ends with a useful summary and concluding comments.

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1. Introduction¹

The exchange rate regime is a crucial component of the macroeconomic policy of any country. The basic objective of the regime is to establish an exchange rate consistent with a sustainable current account balance and with the promotion of exports needed for continued growth. This objective cannot be achieved once and for all. Maintaining a sustainable balance requires that a combination of actions in the areas of fiscal, monetary, and trade policy and debt management be taken in response to changing conditions. In advance of an event, such as a balance of payments (BoP) shock, policy makers have several options. They must consider the advantages and disadvantages of adjusting to the shock by (i) financing, (ii) changing a pegged exchange rate, (iii) allowing the market to change a floating rate, and/or (iv) demand management. From time to time the authorities may change their preferences among these options, but at any given time they will be disposed to act in a certain way reflecting the preferences in effect at that time.

This essay provides an overview of the merits and demerits of different systems of exchange rate management. Section 2 has a brief historical review to set the context. Section 3 considers the principal objectives of exchange rate policy. Section 4 examines the pros and cons of fixed exchange rates. Section 5 discusses the usefulness and limits of currency boards. Section 6 examines the advantages and disadvantages of floating exchange rates. Section 7 discusses the problems of dealing with transient exchange rate movements. Section 8 has a summary and concluding comments.

2. Shifts in Exchange Rate Regimes

The exchange rate experience of the last fifty years demonstrates the difficulties in choosing an exchange rate regime. At the end of the Second World War the “Bretton Woods” system was set up. Countries joining the IMF agreed to establish a gold or dollar value for their currency and to refrain from changing their exchange rate without IMF approval.

The designers of the Bretton Woods system recognized the conflict between exchange rate stability and domestic objectives; they sought to resolve it by the “adjustable peg” rule for exchange rates. IMF members, then mostly industrial countries, were supposed to manage their domestic affairs in the interest of price stability and full employment and to deal with temporary shifts in trade conditions by using reserves, borrowing, and by accepting moderate deviations from their domestic objectives. When maintaining the fixed exchange rate became too costly to the domestic economy (i.e. when “fundamental disequilibrium” emerged) the rate could be changed with the approval of the IMF.

That compromise made sense but failed for two reasons. First, opposition politicians asserted that a devaluation showed that the government had managed things badly. Second, any threat of devaluation could set off a “run” on a currency, whether the devaluation was necessary or not. Moreover, countries with current account surpluses saw no need to adjust. The system became one of shifting deficits from one country to another.

Since reserves and borrowing capacity were always limited, countries with balance of payments deficits had to choose between a painful contraction of domestic demand or the political

embarrassment of devaluation. Some, like the UK in the 1960s, did first one, then the other. When the U.S. had to suspend gold payments in the early 1970s, most countries readily agreed to give up the Bretton Woods system and let currencies float.

After a relatively short time, however, exchange rates were found to be far less stable and less responsive to economic fundamentals than had been expected. The rapid increase in the volume of international capital flows was blamed for these aberrations.

Dissatisfaction with floating rates has renewed interest in fixed rates. European countries tried several arrangements for fixing rates within Europe culminating in the adoption of the euro.

Changes in attitudes were connected with changing concerns about full employment and inflation. The Bretton Woods agreement reflected the experiences of the Great Depression. High employment was a primary focus of economic policy. After the inflation of the 1970s, price stability became a major concern and fixed exchange rates were touted as a barrier to inflationary fiscal and monetary policies.

Of course, African countries were strongly affected by the exchange rate policy of the industrial countries. Most countries became independent in the late 1950s and early 60s. They initially followed policies derived from their colonial experience. The franc zone (FZ) countries continued their membership in the West and Central African monetary unions and accordingly maintained fixed parity with the French franc.

In the other SSA countries, the currency boards established by the colonial regimes continued to operate for a time but were soon replaced by central banks. In the late 1960s and early 1970s most of the SSA countries were growing and with few exceptions had little more inflation than the industrial countries. But their management capacities were severely tested during the 1970s. Most of them failed the test and suffered badly from serious sustained economic imbalances.

Most of the countries outside the FZ experienced high rates of inflation, capital flight, large public sector debts which could not be serviced and insolvent financial institutions. While adverse shifts in terms of trade and serious droughts played a role in some cases, over-ambitious development programs financed by domestic and foreign credit were largely responsible for inflation and balance of payments difficulties. Those problems were exacerbated by the unwillingness of governments to make the adjustments in fiscal and monetary policy required by adverse terms of trade and bad weather, as well as by their own excesses. Their efforts to support unrealistic exchange rates by using exchange controls led to capital flight and reduced productivity by distorting prices. Rationing of foreign exchange directly affected productivity by creating frequent shortages of needed supplies and equipment. Meanwhile, interest rate controls and credit rationing discouraged savings, distorted investment incentives, and encouraged capital flight.

The debt crisis of the early 1980s forced many African countries to undertake reform programs. These programs required adjustments in fiscal and monetary policy, the reduction or elimination of subsidy and price control programs, and almost always required some steps toward market-determined exchange rates. Programs adopted only in order to obtain credit from the IMF and

donor countries were often dropped after a relatively short time, but were soon replaced with new ones. By the end of the decade, a number of countries had accepted market-based exchange rates with few controls. Nonetheless, parallel market premiums continued in many countries. In some cases small premiums reflected imperfections in the market rather than formal controls.

Meanwhile, the FZ countries maintained parity between the CFA franc and the French franc until 1994. The Franc Zone countries had relatively good inflation records. Yet, due to changes in terms of trade and exchange rate depreciation elsewhere, the CFA franc became seriously overvalued. In spite of generous French aid and the accumulation of large external debt, it was necessary to adopt protectionist measures and to maintain restrictive fiscal and credit policies that caused the economies of the FZ to stagnate. In 1994, the CFA franc was devalued by a doubling of the exchange rate relative to the French franc.

The countries outside the FZ have had mixed success in managing their exchange rates. On the whole, countries with moderate (5%-10%) inflation rates have been able to maintain relatively stable nominal exchange rates. The Gambia and Mauritius have had quite stable rates since 1990. Botswana's real rate fluctuated in a range of about 10% around the mean. Uganda, after stabilization in 1992, had somewhat wider fluctuations. Kenya had moderate inflation rates, but a burst of inflation nearly tripled prices between 1992 and 1994. As inflation accelerated, the nominal exchange rate nearly doubled; then as inflation slowed the nominal exchange rate fell sharply and the real exchange rate fell (appreciated) by 50%. It has remained below the 1992 level.

In Ghana, the cedi continued to depreciate in nominal terms after the 1983 reforms. In spite of continued rapid inflation, the real exchange rate also depreciated as the nominal exchange rate rose faster than prices until 1989. Thereafter the real rate varied by about 25% above and below its average value with little trend.

Malawi demonstrates the high cost of the interaction of exchange controls and inflation. Since 1990, Malawi's inflation rate has averaged about 25% per year. Malawi devalued in 1992 and again in 1994 and finally floated in 1997. The interaction of inflation and periodic devaluation caused sharp fluctuations in the real rate. Nigeria has had a similar experience as unstable political conditions led to a cycle of inflation and exchange control episodes.

Tanzania, with inflation averaging 20% per year, has had an appreciating real exchange rate since 1992. Liberalization of the exchange rate was part of a relatively successful overall reform program that has enabled the country to attract foreign capital. Generous foreign aid and the growing proceeds of artisanal gold-mining have helped stabilize the exchange rate.

In Zambia, the exchange rate was seriously overvalued in 1990. Since then, Zambia has suffered a disastrous inflation with 1998 prices being more than 70 times those of 1990. Initially, the real exchange rate depreciated as the nominal exchange rate increased more rapidly than prices, but in 1993 the nominal exchange rate appreciated as part of the drastic anti-inflation program. The real exchange depreciated in 1994 as the nominal exchange rate depreciated at a rate above the rate of inflation. Since mid-1995, however, the government of Zambia and the central bank have

attempted to control the rate of exchange rate depreciation. Inflation has been high leading to a substantial real appreciation of the exchange rate.

The mixed results of reform programs raises questions about exchange rate policy open. Floating rate countries with moderate inflation can avoid persistent exchange rate misalignment but still suffer from erratic movements and general overvaluation of real exchange rates. High inflation countries like Ghana face wide swings in real exchange rates largely because the succession of failed attempts at price stabilization is usually matched by a lagged response in the exchange rate. Resort to exchange controls only generates further instability. All of that experience emphasizes the need for stable macroeconomic policies consistent with price stability, but leaves open the question of how to achieve them.

Since it is clear that politically motivated macroeconomic policies are responsible for most of the problems discussed here, it seems reasonable to seek a political solution. It is often argued that, since rapid inflation is inconsistent with a fixed exchange rate, a commitment to fixed exchange rates will provide a nominal anchor for the price level and veto adoption of inflationary policies. Recently, it has been asserted that “currency boards” provide an even stronger commitment to price and exchange rate stability. In the following sections we review the pros and cons of traditional fixed exchange rates, currency boards, and floating rates. We begin with a brief review of the objectives of exchange rate policy.

3. Objectives of Exchange Rate Policy

The basic objective of exchange rate policy must be to attain a viable BoP position, subject to maximizing resource utilization, holding price inflation within limits acceptable to society, and minimizing protection. The record of African countries during the last thirty years shows the folly of abandoning these objectives while the record of a few countries like Botswana and Mauritius show the benefits of achieving them.

Obviously, pursuit of these objectives involves tradeoffs. Some under-utilization of resources is necessary to ensure reasonable price stability. The political compromise between resource utilization and price stability differs among countries. The choice of exchange rate regime should be consistent with the compromise that is made. For example, pushing resource utilization close to the margin makes a fixed rate regime less appropriate.

The experience of successful developing countries has shown that full and productive use of resources requires expansion of exports at a rate well in excess of GDP growth.² Attainment of this objective presupposes an appropriately valued real exchange rate. Indeed, much of the difficulty in both fixed rate systems and pure floats arises from ways in which either system may lead the real exchange rate away from a level that will promote the efficient use of resources and support an adequate growth rate of exports.³

Finally, the choice of exchange rate regime will be influenced by short-run political considerations such as the desire of politicians to avoid the turmoil associated with BoP crises, concern over “losing face” if the national currency is allowed to depreciate too rapidly, and

pressures from economic agents whose interests are linked to changes in the local currency equivalent of import or export prices.

The following sections examine the three aforementioned approaches to exchange rate management in the light of their relations to price and output stability, as well as to rules for control of nominal demand.

4. Fixed Exchange Rates

Up to the last generation, fixed exchange rates were regarded worldwide as the norm. Inflation, inconvertible paper currency, and exchange depreciation were universally deplored. Historically, support for fixed exchange rates is linked to support for stable prices. The specie-flow mechanism ensured that no country could maintain a differential inflation for long unless it gave up the gold standard.

Current support for fixed exchange-rate regimes in developed as well as developing countries derives from the view that fixed exchange rates imply a commitment to policies consistent with price stability. There are several reasons for this association. First, a fixed-rate regime is more transparent – a movement of the exchange rate outside an announced band is a definite and monitorable event, whereas fluctuations of a floating rate are subject to widely varying interpretations. Second, the regime appeals to the historical association of fixed rates with "sound money." Third, a government's resolve to combat inflation is reinforced by the view that devaluation after a commitment to a fixed rate represents a failure of economic management.

Nonetheless, commitment is not the same as performance, otherwise the world would see fewer divorces, wars and broken contracts! A government can at any time announce its commitment to a fixed rate, with no guarantee that it will follow the macroeconomic policies needed to support such a commitment. International agreements to maintain rates at a certain level have repeatedly broken down after costly efforts to support them. Like second marriages, they seem to represent the triumph of hope over experience.

Everyone agrees that low inflation and stable exchange rates are desirable *per se*. The question is what they cost to attain. An announced commitment to an unrealistic objective does more harm than good. It undermines credibility, making future commitments more difficult to sustain. Three different sets of circumstances have led governments to abandon a fixed exchange rate regime after strongly proclaiming their intention to maintain it.

First, a burst of inflation, whatever its cause, can raise prices above those in competing countries. Restoring one's competitive position without currency depreciation requires that the initial burst be offset by depressing subsequent rates of inflation below those of the country's competitors. Even if this proves possible, the benefits from protecting the fixed exchange rate may not be worth the cost in terms of foregone output – especially given the possibility that the cycle may be repeated.

Second, differential inflation is not the only cause of external imbalance. A population's demand for imported products, and world demand for its own exports, shifts along with consumer tastes

and rates of technological change and appearance of new products that vary among countries. Along with weather-induced fluctuations in harvests, these factors lead to sizable terms of trade (ToT) shifts. Competitiveness is also affected by other countries' exchange rate policies. A country's relative attractiveness to investment capital shifts with the business cycle, comparative interest rates at home and abroad, and political developments within or even wholly outside the country's borders.

Third, countries that are successful in maintaining fixed exchange rates for a time often attract substantial inflows of foreign capital, especially if their internal rates of return are relatively high. These inflows may add to inflationary pressures while supporting a current account deficit. While many other factors were involved, this syndrome clearly played a role in the recent Asian crisis.⁴ Policies with regard to capital inflows and the possible use of capital controls are discussed below.

When changes are temporary, exchange rate adjustment can be avoided by use of reserves, by borrowing or by a period of demand restraint. These measures are costly and if they fail there is no offsetting benefit. When the changes are permanent, exchange rate depreciation is inevitable and delay is costly.

When a high ratio of non-tradables prices to those of tradables makes an economy uncompetitive, quickly correcting this distortion will facilitate faster growth over time than a deflationary policy aimed at keeping the consumer price index (CPI) nearly constant for a few years or even reducing it. The stagnation that a number of African countries have experienced while following such a policy is analogous to that undergone by Britain in the 1950s and '60s while trying to maintain a fixed and generally overvalued exchange rate for the pound sterling.

Looking at the experience of the countries noted above, as well as the rest of SSA (and, indeed, the rest of the world), we find that nearly all have sooner or later been forced to devalue, because (i) of overly expansive fiscal and monetary policies, (ii) they too readily accommodated price increases initiated by supply shocks, or (iii) they want to offset a persistent adverse shift in ToT. Without devaluation, all three eventualities require domestic prices to rise less rapidly than world prices. Achieving this has generally proven to be too difficult for most countries, especially those in Africa.

Our experience teaches three main lessons about fixed exchange rate regimes:

- They should be pursued only when there is strong political support for price and exchange rate stability. Only then can one expect public support for policies that contain demand pressure and refrain from accommodating inflationary pressure from supply shocks.
- For a fixed-rate regime to be beneficial, a country must be able to adjust to temporary adverse shifts in the trade balance without devaluation. To do this requires substantial foreign reserves and/or borrowing capacity. The country must be able to replenish reserves and pay off debt when circumstances are more favorable. There must be political support for a period of demand restraint until trade conditions improve. Finally,

during periods of adversity, the government must be able to resist pressures for protectionist measures that will undermine efficiency over the long run.

- Third, it is important to know when to give up. Adverse ToT shifts that persist for years can only be offset by depreciation of the exchange rate in real terms, which is tantamount to maintaining a lower inflation rate than one's trading partners. If this is not achieved, devaluation is ultimately necessary and the sooner it is done, the better.

With one qualification, the first two conditions have not been fulfilled in the countries mentioned above or in the rest of Africa, nor are they likely to be in the foreseeable future. The qualification is that Senegal and its fellow FZ members, acting jointly through the BCEAO (Central Bank of the West African States) and BEAC (Central Bank of Central African States), imposed extraordinary price stability on themselves in the years prior to the CFA franc devaluation. It was insufficient to offset ToT deterioration and other factors that undermined their competitiveness in the world market.

5. Currency Boards⁵

Because the success of a fixed rate regime depends so much on the political response to the measures required to sustain the exchange rate, there is much to be said for arrangements which depoliticize the process. A currency board system does that by requiring that the local currency be backed 100 percent by the board's holdings of foreign exchange, and prohibiting the board from lending to the government or commercial banks.

This means that the supply of domestic currency, always the largest component of reserve money, is not controlled by policy decisions of a central bank. Instead, it depends on the balance of payments and the willingness of the country's residents to exchange their foreign assets for local currency, whether in cash or deposits.

This puts an obvious brake on inflation, although the money multiplier can still operate if commercial banks hold only fractional reserves in cash or claims against the currency board. In principle, the system is self-correcting, since any expansion of deposit money increases demand for imports, whereupon importers sell the board local currency in exchange for foreign currency, leading the money supply to contract. On the other hand, an export boom or large inflow of foreign capital can lead to rapid expansion of the money supply, thus causing at least temporary inflation.

Nonetheless, a currency board that sticks to the rules severely limits inflation both by removing money creation as an option for financing government expenditure and by taking decisions about interest rates and credit availability out of the realm of politics. Recently created currency boards in Eastern Europe and Latin America have been given quasi-constitutional charters, taking on the character of a contract between the board and the currency-holding public, not to be tampered with lightly. A properly functioning currency board system bears a close resemblance to the old gold coin standard.

If an African government's primary concern were price and exchange rate stability, a currency board might well solve its problems. On the other hand, in some conditions, the system might be

seen as imposing too high a social cost. Under a currency board, a persistent adverse shift in the terms of trade necessarily generates a balance of payments deficit. This can be financed with foreign credit for only a limited time. Thereafter, the loss of reserves resulting from the deficit leads money supply to contract until domestic prices have fallen far enough to restore the trade balance. A currency board locks its country into this scenario until political pressures force an abandonment of the system. For example, Brazil's 1999 devaluation put pressure on Argentina's government to restructure its foreign exchange regime.⁶

Most British colonies in Africa spent many years under regional currency boards – notably the West and East African Currency Boards (WACB and EACB) – which the newly independent governments left as soon as they had time to organize their respective central banks. These boards issued local notes and coin in exchange for pounds sterling, to which they were linked in a one-to-one ratio (with the qualification that East Africa's legal currency unit was the shilling, in a 20:1 ratio to the pound, even though budget documents and national accounts gave values in pounds as a more convenient accounting unit). The local currencies were thus backed 100 percent by foreign reserves, even though their convertibility *vis-à-vis* the dollar and other strong currencies was subject to controls that Britain maintained on the pound sterling.

For many years following the demise of the WACB and EACB, the only extant currency board was that of Hong Kong, which, despite its status as a British colony, has maintained a fixed exchange rate against the U.S. dollar since 1983. Liberia ran a *de facto* currency board by using the U.S. dollar as its principal medium of exchange, apart from local coins representing fractions of a dollar.

The currency board has staged an unanticipated revival as authorities in countries as diverse as Argentina, Bulgaria and two Baltic states, Estonia and Lithuania, decided –in Argentina's case after decades of failed resort to other options – that it was the only way to enforce fiscal discipline and impose hard budget constraints on economic agents, especially the government, thereby giving credibility to a commitment to monetary and fiscal stabilization. Many observers view the improved growth performance that has followed the new monetary arrangements as cause and effect.

In retrospect the poor performance of many African economies during the 1970s and '80s, and their continued fragility up to the present time, suggest that they might have done better with currency boards than they have by switching to central banks. They could hardly have done worse. Had they stayed the course, they might have enjoyed greater macroeconomic stability and attracted more investment, with correspondingly faster growth rates of exports and GDP.

At the same time, staying the course does not guarantee smooth sailing. In lieu of central bank credit, governments could have borrowed from both local and foreign financial institutions. Even with lower inflation, most governments would sooner or later have reached the limit of their capacity to finance trade deficits. At that point they would either have had to accept severe demand restraint, as the FZ countries did, or else abandon the system. Indeed, though using different mechanisms, the currency board system has objectives that are very close to those of the FZ, and, as might be expected, it has the same virtues and limitations.

6. Floating Exchange Rates

The alternative to a fixed exchange rate is to let the market determine the exchange rate with a minimum of intervention. The rate will then tend to move in the way required to reach a new BoP equilibrium.

The advantages and disadvantages of floating rates are the opposite of those attributed to fixed rates. The stability of fixed rates may make markets more efficient, as well as reducing transactions costs. However, it can make the adjustment to persistent changes in conditions more difficult than those required under less stable but more flexible floating rates. Floating rates permit a continuous response to changes in fundamentals, easing the adjustment required by changes in terms of trade.

Floating rates do not cause inflation but neither do they limit it. The great advantage of a floating rate is that, when inflation does occur, BoP equilibrium is maintained by automatic shifts in the exchange rate instead of by measures of demand restraint and protection that result in the underutilization of resources and distortion in their allocation. By contrast, fixed rates may make inflation less likely but more costly when it does occur.

Because freely floating exchange rates clear the market, finance ministers and central bank governors in floating-rate countries do not have the constant worry about their BoP positions and foreign reserve levels that afflict their counterparts in fixed-rate countries. That said, no one should believe that adherence to a floating exchange rate allows a government to conduct its fiscal and monetary policy without concern for trade and payments considerations. *Attainment of exchange rates consistent with external balance and with needed growth of exports must be a major objective of macroeconomic policy.*

Floating rates are determined by interaction among many aspects of economic policy and conditions in the markets for goods, services, and capital. The rates resulting from this process are not necessarily optimal or even satisfactory from the viewpoint of promoting medium- and long-term growth. A variety of temporary shocks from weather to political disturbances in trading partner countries can cause ephemeral movements in exchange rates.

Moreover, the fact that elasticities of supply and demand tend to be significantly higher in the medium-to-long term than in the short run means that a change in supply or demand conditions may cause the exchange rate temporarily to overshoot the level that would equilibrate supply and demand in the long run. Stabilizing speculation may help, but it will not ordinarily be efficient enough (operate with a sufficiently long horizon) to resolve the problem altogether. The result may be costly distortions in resource allocation.

International capital movements, actual and potential, can play a major role in responses to macroeconomic policy under a floating rate regime. Interest rate differentials are not always well matched to economic conditions and may lead to perverse or excessive exchange rate movements. Speculation based on guesses about future policy may be destabilizing. Finally, capital and exchange rate movements can be generated by speculation about political instability, with leaving unstable countries to seek safer havens.

The capital movements and exchange rate swings that followed the shift in U.S. fiscal policy in the early 1980s reflected all the forces just mentioned. No one will argue that they kept exchange rates close to medium-term equilibrium positions. Developing countries are exposed to similar phenomena and are more vulnerable due to the thinness of their exchange markets.

Worldwide, policy makers have recognized the disadvantages of fixed exchange rates and have generally abandoned them, without being fully satisfied with the outcome of floating rates. Indeed, dissatisfaction with floating rates led to establishment of the European Monetary Union. However, a return to fixed exchange rates is not the only alternative to floating rates. In fact, pure floats are rare; official actions to influence exchange markets are common in most countries.⁷

While all countries face contingencies such that well-conceived intervention in exchange markets would yield better results than *laissez-faire*, their financial and technical resources for constructively influencing exchange markets vary. Even developed countries with ample reserves are able to exert only a marginal influence on their exchange rates. African countries lack reserves, borrowing capacity, and the institutional depth to do even that.

Nonetheless, governments and central banks can influence the trend of their exchange rates and reduce volatility through judicious fiscal, monetary, trade and debt management policies. Market determination of exchange rates is strongly influenced by macroeconomic policy and expectations about its direction. One cannot expect exchange rates to follow a stable course in the absence of consistent and realistic macroeconomic policy that holds nominal demand to a path consistent with an acceptable rate of inflation.

Changes in expectations about inflation and in real interest rate differentials are two major causes of short-run real variations in the real effective exchange rate index (REER). Stable demand management and realistic interest rate policy dampen speculative capital flows and the ensuing exchange rate fluctuations.

One way to control inflation is to set a target for nominal GDP growth and conduct monetary and fiscal policy in a way consistent with the target. If nominal GDP grows at a rate equal to the sum of potential real output growth and an acceptable rate of inflation, the problems of inflation and exchange rate depreciation will be minimized. There will be no bursts of excess demand, and supply shocks will not be accommodated. Shocks will initially cause domestic prices and the price of foreign currency to rise, but that will force a reduction in real domestic absorption, limiting the "pass through" of the initial price rise into further wage and price increases. If inflation can be contained while interest rates are determined by market processes, the volatility of exchange rates can be greatly reduced without direct market intervention. At the same time, the market-clearing and resource utilization objectives will be achieved.

Sound domestic stabilization policies are the starting point for exchange rate management, but BoP shocks will inevitably require adjustments in monetary and fiscal policy and may raise the question whether direct intervention in exchange markets is feasible or wise. Though it is not

always possible to know whether a change in conditions is permanent, policy must be guided by judgments as to whether any change will persist.

7. Transition Exchange Rate Movements

Short-term variations in export prices and export volume, as well as events in the capital markets, will often cause temporary deviations of exchange rates from their medium-term equilibrium. When it is clear that the deviations are temporary, it is usually best to take no special action. Lags in response and error in estimating the effects of any proposed remedial actions reduce the likelihood of benefit from monetary action

Intervention that limits such movements can, in principle, reduce losses. In practice, however, African governments generally lack the resources and forecasting capacity required to conduct successful exchange market intervention. Injudicious intervention is likely to exacerbate rather than contain volatility.

Proponents of floating rates often exaggerate the efficacy of stabilizing speculation by private operators, but no greater reliance can be placed on forecasting by government agencies. Indeed, speculators have every reason to suspect the authorities of wanting to keep rates constant and therefore being biased towards judging permanent shocks as transitory. Official intervention is socially useful only if the government systematically makes better judgments than the market and acts upon them. That criterion is rarely met.

The difficulties of forecasting the effects of monetary and fiscal action are well known and do not encourage an activist response to transient problems. A certain amount of built-in stabilization is implied by a policy aimed at achieving a steady growth of nominal GDP, but there will be times when it will be reasonable to move interest rates sharply upward to convince speculators that a serious stabilization policy is still being pursued. However, that is not a move that can be made very often.

Direct intervention by central bank transactions in foreign exchange is limited by availability of resources, but should not be ruled out altogether. A case for limited intervention may arise when a government needs to build up foreign exchange reserves and finds its currency appreciating.⁸ Acquisition of reserves during such a period moderates transitory upswings, thereby dampening subsequent downswings.

Once acquired, reserves can be useful as a supplement to other stabilization measures. For the foreseeable future, most African countries will have insufficient reserves to check a rate movement backed by the bulk of market participants. The exception is Botswana. Botswana has ample reserves and is pursuing a conservative fiscal and monetary policy. Market participants will not attack the currency. For other African countries, when effective stabilization measures are in place, selling foreign exchange may satisfy enough of the remaining speculative demand to stabilize the market. Because of lingering confidence problems, this activity will be severely limited in scope.

a. Adjusting to Persistent Change

Regardless of the exchange rate regime, the adjustment to a permanent loss of income must involve a reduction in expenditure for domestic absorption as well as a depreciation of the exchange rate. The depreciation required to discourage imports and encourage exports will not be effective unless expenditure reductions make room for increased net exports. The recommendations, that are so often urged on fixed rate countries, must also be made by countries with floating exchange rates. The expenditure reduction component will usually require a painful dose of monetary and fiscal restraint. Given this adjustment, the exchange rate change can be brought about by market forces. However, because exports and imports respond slowly to exchange rate changes, the adjustment process will be difficult. The slack resulting from monetary and fiscal restraint may not be taken up by higher net exports for some time.

b. Improving Market Performance

Even a relatively stable market will experience daily and hourly variations in exchange rates due to minor imbalances between in- and outflows of foreign exchange. If the market is well organized, with dealers prepared to make a market in foreign currencies, most of these imbalances will be absorbed with minor variations in spreads. However, when the exchanges are newly liberalized and participants are new at the game, dealers may not be prepared to take positions for small returns and information will flow imperfectly.

In the face of rate movements caused by market "noise," a central bank may dampen volatility by changing rules, procedures and information systems, or, if resources are available, by direct purchase and sale of foreign exchange. In considering direct entry to the market, the central bank has to balance the costs of market volatility against the prospect that its actions may preempt dealer activity.

Seasonal variations in exports, large payments for debt service, and lumpy receipts of foreign aid all exert pressure on exchange rates. It is open to government to manage its own foreign transactions so as to not unnecessarily disturb the market. On the other hand dealers should be expected to dampen fluctuations reflecting crop, tourism, or other cycles.

8. Concluding Comments

The cases discussed above do not exhaust the catalog of sources of instability in foreign exchange markets, but they suggest a framework to which the following policy considerations apply.

- The objective of exchange rate policy should be to maintain a REER approximating a value that (a) meets the BoP constraint and (b) provides an adequate incentive to exports. It is helpful to regard such a rate as a "real adjustable peg," where the peg is a target ratio between the real values of the national and foreign currencies, rather than an explicit buying or selling price. The target should be adjusted to reflect persistent changes in conditions affecting trade. The authorities should use indirect (market-based)

instruments to reduce any discrepancies between nominal market (not official) rates and the target.

- It is not possible for most SSA countries to control market exchange rates. Policies that influence exchange rates should be guided by the objective listed directly above.
- If the authorities can adhere to a policy of maintaining stable nominal GDP growth at a rate consistent with the country's real growth potential and an acceptable inflation rate, the market exchange rate should follow the path described in bullet one above.
- Short-run disturbances will cause deviations from the target path. Given limited resources and uncertainty about the market's reaction to official intervention, the monetary authorities should accept, i.e. not seek to counteract, market-based shifts in exchange rates within a fairly wide band.
- However, it will be appropriate to exploit temporary pressures for real appreciation of the national currency to accumulate reserves.
- Speculative capital movements may sometimes move exchange rates significantly off the target path. If the authorities are satisfied that continuation of that movement will be costly to the economy – e.g. it will damage exporters and dampen incentives to produce for export – they are justified in using official resources to check the movement. Appropriate instruments for this purpose include the use of reserves, putting pressure on domestic interest rates to influence capital flows, and adjusting fiscal policy to restore confidence. Reserves alone will ordinarily be insufficient to reverse major exchange rate changes.
- Exchange rates are likely to fluctuate widely for a time after liberalization. If reserves and/or borrowing capacity permit, the authorities may wish to intervene to counteract movements they consider excessive. In most cases, they will be better advised to resist the temptation. The interplay of disinflation, adjustments in exchange rates, and interest rate movements is a dynamic process made even more complex by external and internal shocks and policy shifts.⁹

A basic stabilization program involves moving towards budget balance on the fiscal side and, on the monetary side, a policy consistent with stable growth of nominal GDP. Exchange and interest rates should move towards levels that support those policies. Movement towards equilibrium will be complicated by lagged responses of different segments of the economy to changes in inflation and exchange and interest rates. The effects of external shocks will be superimposed on those movements.

Given their limited resources as well as forecasting ability, in lieu of intervention with possible consequences opposite to those intended, most governments would be best advised to let the adjustment process play itself out. The longer a government sticks to a package of stabilization policies, the greater its credibility and the faster the market will settle down. Meanwhile the central bank and ministry of finance can begin to develop the necessary database and instruments so that limited efforts to stabilize exchange rates will promote and sustain growth.

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Endnotes

¹ We make liberal use of the ideas and empirical results in Duesenberry *et al.* (1996).

² OECD (1998). Whether trade growth drives trade or vice-versa is subject to some dispute. Chapter five in provides evidence from a multi-equation model based on data from 33 African countries over the period 1970 to 1998 showing that trade depends directly on income growth and income growth, in turn, depends indirectly on trade through (among other things) the real exchange rate.

³ The work of Easterly and Levine (1995) and Ghura and Hadjimichael (1996) illustrates the problems for growth when there are distortions and inefficiencies.

⁴ Krugman (2000) provides a no-nonsense accessible overview of the Asian crisis. Other views of the crisis appear in Radelet and Sachs (1998), Gillis (1998), Lane *et al.* (1999), and Katz (1999).

⁵ Hanke and Schuler (1994) provide a recent overview of the operations and merits of currency boards.

⁶ Velde and Veracierto 2000

⁷ This point is recognized by Williamson (2000) who explicitly attempts to define procedures for finding a “middle way” between having fixed and floating exchange rates.

⁸ This was the situation in The Gambia in 1986 and 1987 when its anti-inflation program took effect. As pressure mounted for the exchange rate to appreciate, the central bank purchased foreign exchange issuing treasury bills to absorb the increase in reserve money (McPherson and Radelet 1995, Ch.6).

⁹ These points emerge in a number of contexts, such as the problems of ‘inflation targeting’ or dealing with the financial implications of ‘globalization’ (Mishkin 1999; Bernanke *et al.* 1999; McCallum 2000; Tobin 2000).

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